

18/19

G3 LESSON 3.2.4

can use a table to create a rule/equation.

3-99

Number of years	3	4	5	6
height of tree (ft)	17	21	25	29

↓ ↓ ↓
+4 +4 +4
consistent growth

(a) rule/equation:

$$y = 4x + 5$$

↑ height ↑ # of years ← height when planted

↑ growth

when planted	0	1	2	3
↙	5	9	13	17

(c) How tall after 20 years?

$$y = 4 \cdot 20 + 5$$

$$y = 80 + 5$$

$$y = 85 \text{ ft}$$

The tree would be 85 ft after 20 years.

(d) How long until it is 367 ft tall?

$$\begin{array}{r} 367 = 4x + 5 \\ - 5 \qquad - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 362 = 4x \\ \hline 4 \qquad 4 \end{array}$$

$90.5 = x$ years

3-100, 3-102, 3-104